

INPUT

RESEARCH REPORT

Customer Services
Market Analysis
U.S. 1997-2002

1 9 9 7

IT Customer Services Market Analysis U.S. 1997–2002

INPUT[®]

Frankfurt • London • New York • Paris • San Francisco • Tokyo • Washington D.C.

INPUT[®]

Clients make informed decisions more quickly and economically by using INPUT's services. Since 1974, information technology (IT) users and vendors throughout the world have relied on INPUT for data, research, objective analysis and insightful opinions to prepare their plans, market assessments and business directions, particularly in computer software and services.

Contact us today to learn how your company can use INPUT's knowledge and experience to grow and profit in the revolutionary IT world of the 1990s.

SUBSCRIPTION SERVICES

- Information Services Markets
 - Worldwide and country data
 - Vertical industry analysis
- Business Integration Markets
- Systems Integration and Professional Services Markets
- Client/Server Software Platforms
- Outsourcing Markets
- Information Services Vendor Profiles and Analysis
- Electronic Commerce/Internet
- U.S. Federal Government IT Markets
- IT Customer Services Directions (Europe)

SERVICE FEATURES

- Research-based reports on trends, etc. (Over 100 in-depth reports per year)
- Frequent bulletins on events, issues, etc.
- 5-year market forecasts
- Competitive analysis
- Access to experienced consultants
- Immediate answers to questions
- On-site presentations

DATABASES

- Software and Services Market Forecasts
- Software and Services Vendors
- U.S. Federal Government
 - Procurement Plans (PAR)
 - Forecasts
 - Awards (FAIT)
 - Agency Procurement Requests (APR)

CUSTOM PROJECTS

For Vendors—analyze:

- Market strategies and tactics
- Product/service opportunities
- Customer satisfaction levels
- Competitive positioning
- Acquisition targets

For Buyers—evaluate:

- Specific vendor capabilities
- Outsourcing options
- Systems plans
- Peer position

OTHER SERVICES

Acquisitions/partnerships searches

INPUT Worldwide

Frankfurt

Perchstätten 16
D-35428 Langgöns
Germany
Tel: +49 (0) 6403 911420
Fax: +49 (0) 6403 911413

London

Cornwall House
55-77 High Street
Slough, Berkshire
SL1 1DZ UK
Tel: +44 (0) 1753 530444
Fax: +44 (0) 1753 577311

New York

400 Frank W. Burr Blvd.
Teaneck, NJ 07666
U.S.A.
Tel: +1 (201) 801-0050
Fax: +1 (201) 801-0441

Paris

24, avenue du Recteur
Poincaré
75016 Paris
France
Tel: +33 (1) 46 47 65 65
Fax: +33 (1) 46 47 69 50

San Francisco

1881 Landings Drive
Mountain View
CA 94043-0848
U.S.A.
Tel: +1 (415) 961-3300
Fax: +1 (415) 961-3966

Tokyo

6F#B, Mitoshiro Bldg
1-12-12, Uchikanda
Chiyoda-ku, Tokyo 101
Japan
Tel: +81 3 3219 5441
Fax: +81 3 3219 5443

Washington, D.C.

1921 Gallows Road
Suite 250
Vienna, VA 22182 3900
U.S.A.
Tel: +1 (703) 847-6870
Fax: +1 (703) 847-6872

Abstract

Despite continued growth in the IT customer services market as a whole, its largest segment, equipment maintenance, continues to shrink.

Competition from third party maintenance organizations and increased systems reliability have significantly reduced the profit margins that systems vendors can expect. Consequently, many IT customer services vendors are seeking innovative ways of generating revenues.

The emergence of the Internet and Intranets as viable platforms for business applications looks set to give a healthy boost to IT services markets generally. Already, demand for installation and support of dedicated Internet equipment is strong, and a broad range of Internet-related professional services is beginning to emerge. These trends will fuel growth in the customer services market over the next few years.

The purpose of this report is to present, in a single volume, a comprehensive analysis of the US market for IT customer services.

Analyses include:

- Market size estimates for 1996, for all six service sectors included within customer services (see Appendix A for definitions)
- Five-year growth forecasts for each service sector, for the period 1997 to 2002.
- Quantitative data is supported by qualitative analysis of the trends which are changing the nature of buyer demand for IT customer services.

Published by
INPUT
Cornwall House, 55-77 High Street
Slough, Berkshire, SL1 1DZ
United Kingdom

Customer Services & Support

***IT Customer Services Market Analysis,
U.S. 1997-2002***

Copyright © 1997 by INPUT. All rights reserved.
Printed in the United Kingdom. No part of the
publication may be reproduced or distributed in any
form, or by any means, or stored in a database or
retrieval system, without the prior written permission
of the publisher.

The information provided in this report shall be used
only by the employees of and within the current
corporate structure of INPUT's clients, and will not be
disclosed to any other organisation or person
including parent, subsidiary, or affiliated organisation
without prior written consent of INPUT.

INPUT exercises its best efforts in preparation of the
information provided in this report and believes the
information contained herein to be accurate.
However, INPUT shall have no liability for any loss or
expense that may result from incompleteness or
inaccuracy of the information provided.

Table of Contents

I	Introduction	1
	A. Objectives and Scope	1
	B. Methodology	2
	C. Report Structure	2
II	Executive Summary	3
	A. Vendors Must Compensate for Falling Equipment Maintenance Margins	3
	B. Vendors Must Increase Equipment Maintenance Margins to Remain Solvent	5
	C. Vendors Must Focus on Offering More Integrated Services	8
	D. New Payment Methods Offer Increased Flexibility to Customers	12
III	Customer Services Market Trends, U.S. 1997-2002	17
	A. Customer Services Market 1997	17
	B. Market Segments Trends, 1997-2002	18
	C. Platform Trends	19
	D. Trends in Help Desk Services	23
	E. Business Continuity Services Market Trends	24
IV	Market Analysis, Forecast and Competitive Analysis	27
	A. U.S. Market Database	28
	Appendix	
A	The Customer Services Market Defined	31
	A. INPUT's View of the Customer Services Market	31
	B. Customer Services Sectors	36
	C. Customer Services Vendors	38
	D. Customer Services Revenue Streams	38

List of Exhibits

II

-1	U.S. Customer Services Growth - Maintenance Vs Non-Maintenance Services, 1997-2002	4
-2	Pressures on Equipment Maintenance Profit Margins	5
-3	The Support Mountain	9
-4	Examples of Established Competencies	11
-5	U.S. NT Server Market, 1996-2002	12
-6	Evolution of IT Payment Methods	13
-7	Ways of Enabling Cost of Ownership Reductions	15

III

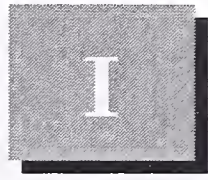
-1	U.S. Customer Services Growth by Market Segment 1996/7 (\$ Millions)	18
-2	Market Segment Growth, U.S. 1997-2002	18
-3	Customer Services Platform Shifts, U.S. 1997-2002	20
-4	Likelihood of Introducing NCs by 1999	21
-5	Help Desk Services Market, U.S. 1997-2002	24
-6	U.S. Business Continuity Services Market, 1997-2002	25

IV

-1	Customer Services Market Forecast, U.S. 1997-2002 (U.S. \$ Millions)	28
-2	Customer Services Revenues, 1996 U.S. (\$ Millions)	29

A

-1	Customer Services Market Structure	33
-2	Software Products Market Structure	35
-3	Customer Services Revenue Streams	39



Introduction

A

Objectives and Scope

The purpose of this report is to present, in a single volume, a comprehensive analysis of the U.S. market for IT customer services.

Analyses include:

- Market size estimates for 1996, for all six service sectors included within customer services (see Appendix A for definitions)
- Five-year growth forecasts for each service sector, for the period 1997 to 2002.

Quantitative data is supported by qualitative analysis of the trends which are changing the nature of buyer demand for IT customer services.

B

Methodology

INPUT's established methodology was used for deriving base year market sizes and five-year forecast analyses. The methodology is based on extensive vendor revenue collection and analysis techniques.

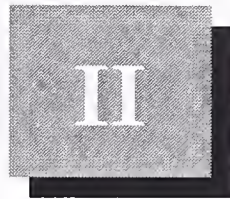
INPUT's analysis is supplemented by information from various other sources including vendor annual reports, company press releases and specialized data published by the computer market trade press.

C

Report Structure

The remaining chapters of this report are as follows:

- Chapter II is an executive summary of the key findings of the study
- Chapter III describes the key market trends which will influence the customer services market in the U.S. over the period 1997 to 2002
- Chapter IV contains quantitative analyses of the customer services market in the U.S. for the period 1997 to 2002, and provides a competitive analysis for 1996.
- Appendix A defines INPUT's view of the IT customer services market, and provides detailed definitions of service sectors and delivery modes.



Executive Summary

A

Vendors Must Compensate for Falling Equipment Maintenance Margins

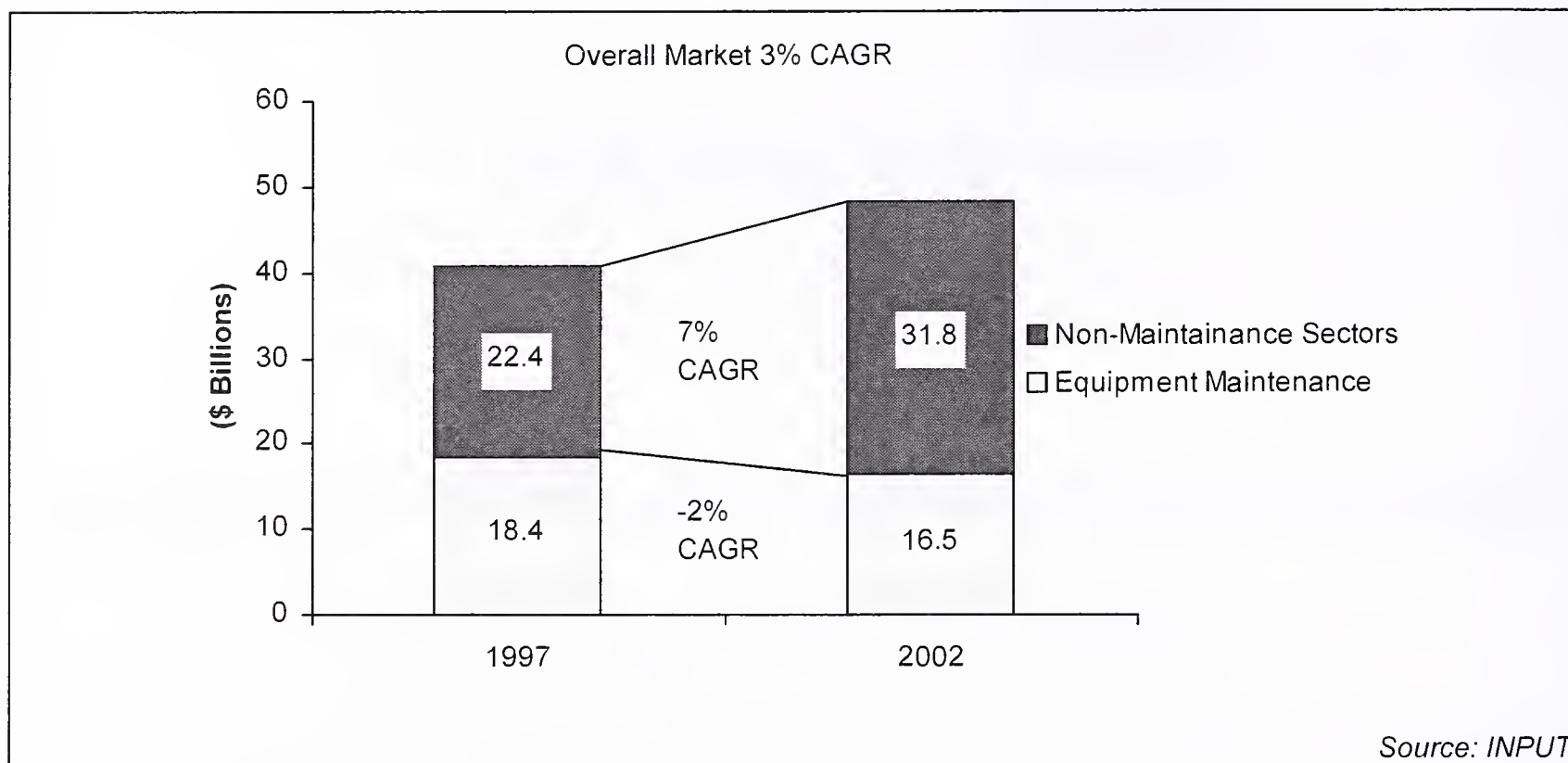
Despite continued growth in the IT customer services market as a whole, its largest segment, equipment maintenance, continues to shrink. Competition from third party maintenance organizations and increased systems reliability have significantly reduced the profit margins that systems vendors can expect. Consequently, many IT customer services vendors are seeking innovative ways of generating profits from equipment maintenance.

The equipment maintenance sector will decline by -2% CAGR between 1997 and 2002. However, growth within the software support, environmental and network services, and professional services segments of the IT customer services market will continue to offset the decline in the equipment maintenance segment for some time to come.

Exhibit II-1 shows the growth rates for the equipment maintenance segment of the IT customer services market (-2% CAGR), non maintenance segments (7% CAGR) and the overall IT customer services market (3% CAGR).

Exhibit II-1

U.S. Customer Services Growth - Maintenance Vs Non-Maintenance Services, 1997-2002



The trend in IT equipment sales, however, is towards increased growth during 1997. The hardware market growth will inhibit the decline in the equipment maintenance market for the next few years.

Another major factor to affect the equipment maintenance sector is the quality of the warranties provided with new equipment. 1995 and 1996 saw an increase in the length and scope of standard warranties being supplied with new IT equipment, most notably with PCs.

Given that equipment maintenance continues to be the largest component of the IT customer services market, vendors must now seek ways of ensuring that their equipment maintenance businesses remain profitable. They must also seek ways of differentiating their offerings as competition intensifies in all IT customer services market segments. Indeed, INPUT research reveals that vendors must:

- Increase margins made from equipment maintenance
- Focus on offering more integrated support offerings such as high availability services
- Introduce flexible payment methods.

B**Vendors Must Increase Equipment Maintenance Margins to Remain Solvent**

Until recently, profits made from equipment maintenance were seen as a means of negating the effects of falling profit margins in the commoditised computer hardware market.

However, many systems vendors are now struggling in an equipment maintenance market which itself has become commoditised.

Exhibit II-2 illustrates both the downward and upward pressures on equipment maintenance profit margins.

Exhibit II-2

Pressures on Equipment Maintenance Profit Margins

Downward Pressure	Upward Pressure
Increased competition	Focus on high margin components
Used as a 'Loss Leader'	Subcontract low margin components
Increased systems reliability	Subcontract administration

Source: INPUT

In response to the squeeze in margins caused by increased systems reliability and increased competition, many vendors are accentuating this downward trend on margins by using equipment maintenance as a 'loss leader'. Increasingly equipment maintenance is being used by vendors as a way of getting 'a foot in the door'. Most equipment vendors aim to augment their equipment maintenance services with higher value offerings.

Some vendors are counteracting this downward pressure on equipment maintenance margins by subcontracting low value equipment maintenance activities and administrative activities, and focusing only on profitable equipment maintenance activities.

Furthermore, INPUT research reveals that:

- Average net margins for equipment maintenance services are now approximately 5%
- Vendors are partnering in order to lower the costs of equipment maintenance provision
- Equipment maintenance is used as a platform for the sale of more profitable services.

Net Margins are Approximately 5%

The equipment maintenance market is now mature — INPUT research reveals that 90% of enterprises now outsource their equipment maintenance activity. The market has been experiencing consolidation leading to withdrawal from the market by many vendors and an increase in acquisitive activity.

Although gross margins made from equipment maintenance average 45%, when sales, general and administration (S, G & A) costs are removed, average margins fall to approximately 5%. Some vendors have reported that their net margins have fallen by 40% this year alone, so it is clear that there is a rapid downward trend in equipment maintenance margins. Vendors must control their S,G & A costs in order to remain competitive in this marketplace.

Equipment Maintenance Vendors Focus on Reducing the Costs of Service Provision by Partnering

Cost control is particularly important to vendors if they wish to make profits from equipment maintenance. For this reason, INPUT expects that many services vendors will adopt one of the following approaches in order to increase the net margins that can be made from equipment maintenance:

- Subcontract administrative functions to specialists.
- Subcontract low margin support activities to first line technical support specialists.

Digital agreed a \$500 million deal with EDS to take over the administration of MCS.

EDS will run the service for the next eight years. It will adopt responsibility for all of MCS' administrative functions.

Approximately 800 (350 in North America) Digital employees around the world will transfer to EDS. Engineers and other staff members involved with the actual servicing of equipment will remain Digital employees.

EDS will re-organize and re-design all of MCS' business processes.

It will implement new software for the division and will ensure its IT environment is Year 2000 compliant.

The arrangement with EDS is expected to enable Digital MCS to enjoy considerable cost savings as EDS will deliver administration at a lower cost.

Unisys GCS has opted to subcontract its low margin support activities to technical support provider, Sykes. Sykes provides GCS customers worldwide with first line helpdesk support and more complex calls are routed to GCS support analysts. However, as far as the customer is concerned, it is Unisys and not Sykes which provides the service.

Unisys' arrangement with Sykes enables GCS to deliver higher quality first line support at a lower cost. Sykes benefits from economies of scale associated with focusing on the provision of first line technical support on a very large scale. Not surprisingly, Sykes' costs are lower than those of GCS for the provision of first line support.

Equipment Maintenance Used as Platform for Higher Value Services

Many vendors for whom equipment maintenance revenues are critical for survival are now looking at ways of holding on to their shares of the market while simultaneously establishing themselves in new growth markets. In essence, equipment maintenance is being used as a platform for the sale of additional higher value services. This can be seen in the desktop services market; vendors are bundling a number of other services such as asset management, help desk services, training, network services, and consultancy services with equipment maintenance as a desktop services offering.

Most systems vendors are aggressively moving into the growing U.S. desktop services market and are increasingly focusing on the high growth areas, namely network services and business consultancy services.

The rapid adoption of Internet technology is creating huge opportunities in the network services arena. Networking equipment vendors such as

Cisco, 3Com and Bay have been quick to exploit the growth in demand for support services centered around their products.

Fortunately for equipment maintenance vendors, the internetworking vendors are partnering heavily in order to ensure that there is sufficient services capacity to match the demand generated by the explosive growth in the market for their products. It is here where vendors will find the greatest opportunities as they cease to rely so heavily on their traditional services.

If equipment maintenance vendors leverage equipment maintenance contracts to offer customers higher value services, and control the costs of equipment maintenance provision, their balance sheets will look considerably healthier.

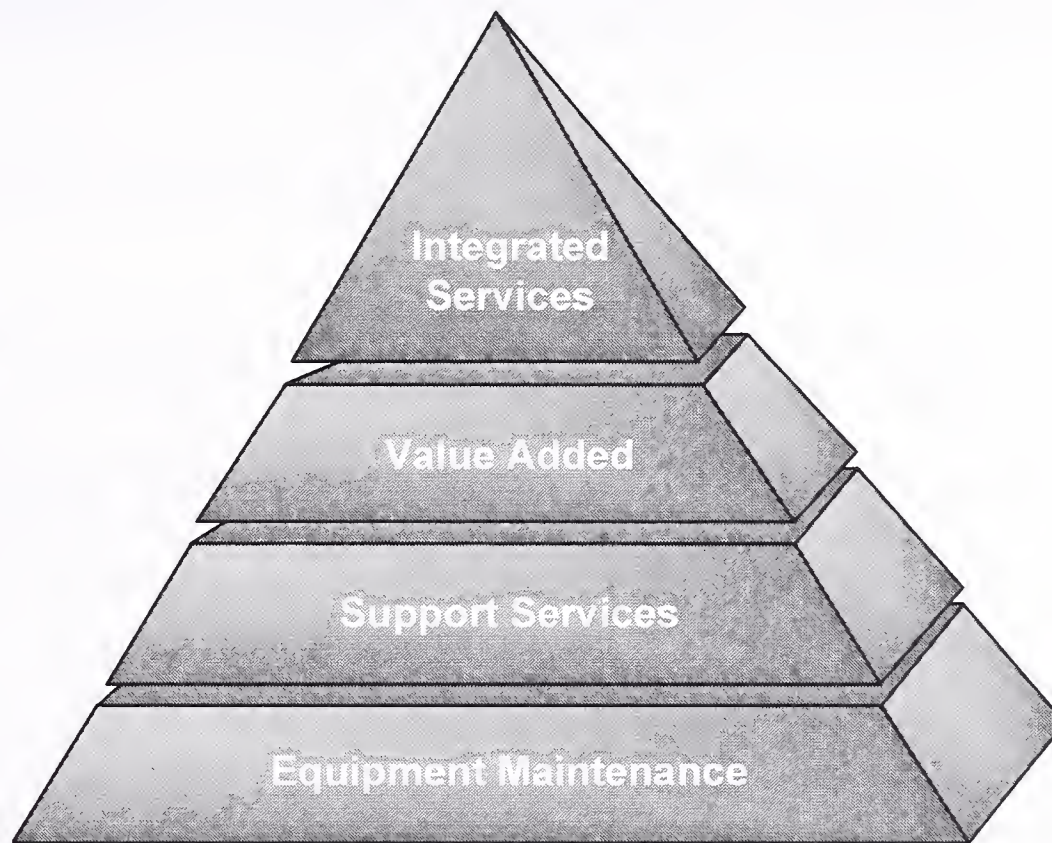
C

Vendors Must Focus on Offering More Integrated Services

The IT customer services market is reaching a new stage in its development. Exhibit II-3 shows INPUT's "service mountain", which demonstrates the different stages in the development of the IT customer services market. Equipment maintenance is the first stage, support services (e.g. software support) is the second, value-added services (e.g. helpdesk services) and integrated services are the third and final stages respectively within this model. Currently, many vendors are heavily marketing integrated services.

Exhibit II-3

The Support Mountain



Source: INPUT

Integrated services typically offer customers a total solution which usually includes equipment maintenance, support services and value added services. Such services comprise all the services which are deemed necessary in order to ensure certain levels of availability. Today, they are often described as high availability services and are perceived to be less expensive than the cost of all the component services when they are sold separately.

Integrated services or high availability services typically include planning and design services, implementation services, and support and management services.

These services are typically marketed as services which can guarantee low levels of downtime. In order to guarantee low levels of downtime, vendors must be involved in planning and designing and implementing IT environments to meet specified levels of availability. Hence the vendor can realistically use support and management services to achieve availability levels. Vendors can compensate for low margins from the equipment maintenance component of a high availability service with higher margins from consultancy and management services.

As more and more applications become business critical, many organizations will demand yet higher availability from their IT systems. Purchasing an integrated solution will give users the guarantees that their IT will carry out the business processes for which it was purchased.

In order to deliver integrated solutions which guarantee high availability, vendors must work closely with partners who may in some cases also be competitors.

Additionally, targeting high availability services at a particular market segment is necessary in order to differentiate offerings.

Vertical market focus is very important, as many customers are looking for business support rather than simple product focus. The ability to demonstrate an understanding of the business drivers within specific industries is becoming more important than ever.

An understanding of business drivers enables vendors to offer predictive services. In certain business environments, there are peak periods when the IT infrastructure is used to the limit. If these periods can be predicted, more resource can be used to safeguard the IT systems. In environments which demand high availability, this peak time analysis is particularly important to prevent failure during the most intense periods of operation.

A vendor with experience within a vertical market sector should have an understanding of the times when business demands on an IT infrastructure are likely to be at their highest.

Vendors can also establish expertise in other areas, for example, they may deliver services which are centered around particular technologies such as SAP or/and Windows NT. Some vendors target high availability offerings at vertical sectors which use certain technologies. For example, NCR targets a high availability offering at enterprises within the banking sector which use SAP R/3.

Exhibit II-4 gives examples of vendors that have already established themselves in key markets.

Exhibit II-4

Examples of Established Competencies

Expertise	Example Vendors
Windows NT	Digital, HP
SAP	HP, SNI, Data General
Banking/Finance	NCR, Unisys
Transportation	Unisys, IBM
Federal Government	Vanstar, IBM

Source: INPUT

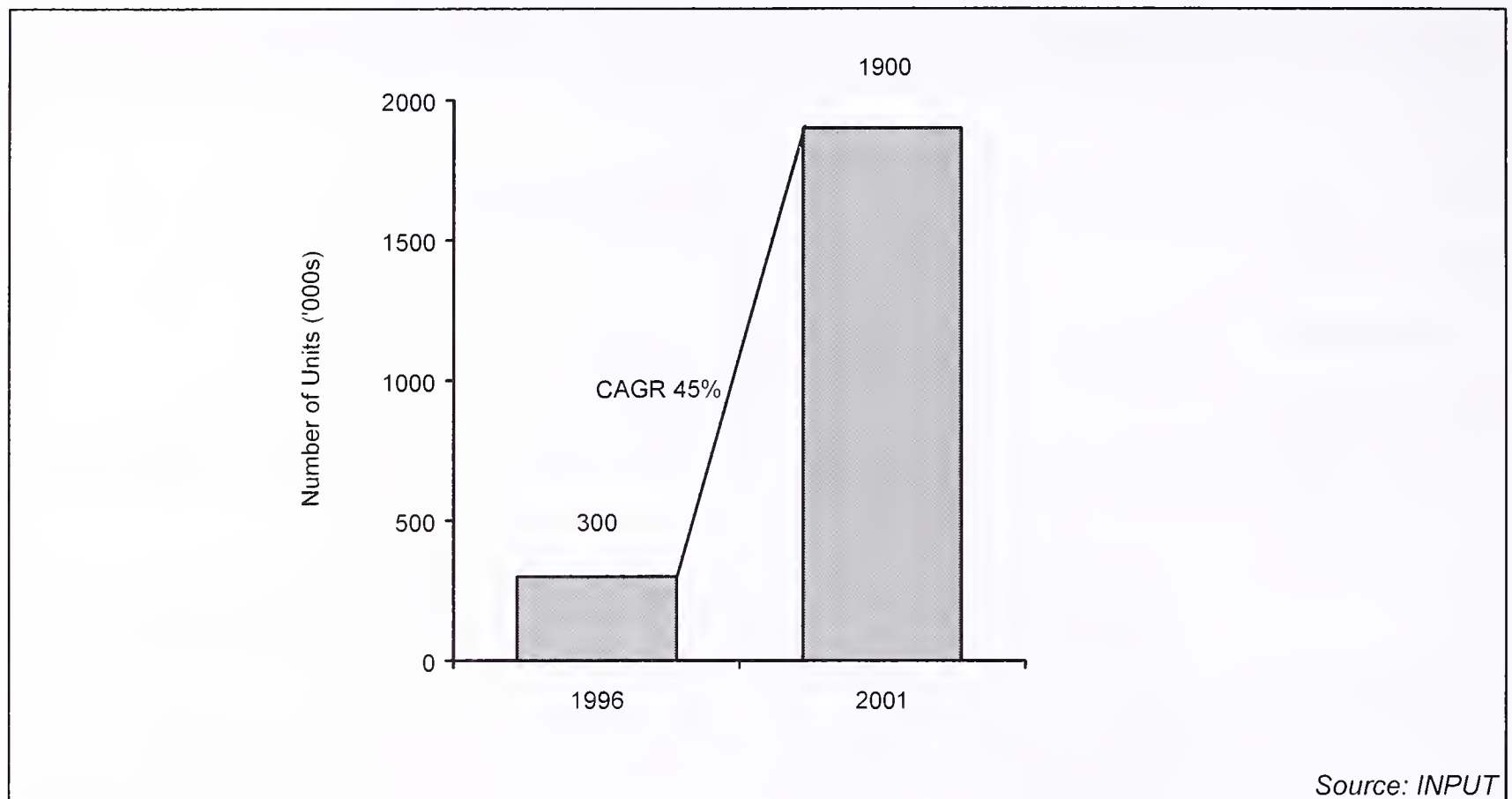
Organizations which can offer services which are perceived to be 'best of breed' in a particular market segment will be at a competitive advantage.

Many vendors, such as H-P and Digital, now offer high availability services centered around the increasingly popular Windows NT. In order for Windows NT to enjoy success within the enterprise, it is important that it is perceived as an operating system which can offer high levels of availability in mission critical environments. Such solutions will become commonplace as the NT 'feeding frenzy' continues.

Indeed, NT has eroded the market share of all other operating systems used in mid-range computing and is beginning to be taken seriously as an enterprise-level operating system.

NT Server's installed base in the U.S. is now in the region of 300,000. By 2001 there will be almost 2 million installations (see Exhibit II-5).

Exhibit II-5

U.S. NT Server Market, 1996-2001**D****New Payment Methods Offer Increased Flexibility to Customers**

As the issue of IT cost of ownership increases in importance in the minds of customers, vendors which can offer flexible payment methods which address cost of ownership concerns will find themselves at a competitive advantage.

The increasingly rapid changes in the IT business have increased demand for flexible methods of payment which enable customers to protect their investments. Many vendors now offer leasing contracts which allow vendors to change their technology during the lease at no additional charge. Furthermore, vendors are beginning to offer even more flexible rental contracts which enable users to keep even tighter control of the cost of IT ownership. As NC and Internet technology become widespread, users will have an even greater degree of flexibility and pay for IT power on a usage basis. These new payment paradigms will further accelerate the uptake of IT solutions.

Exhibit II-6

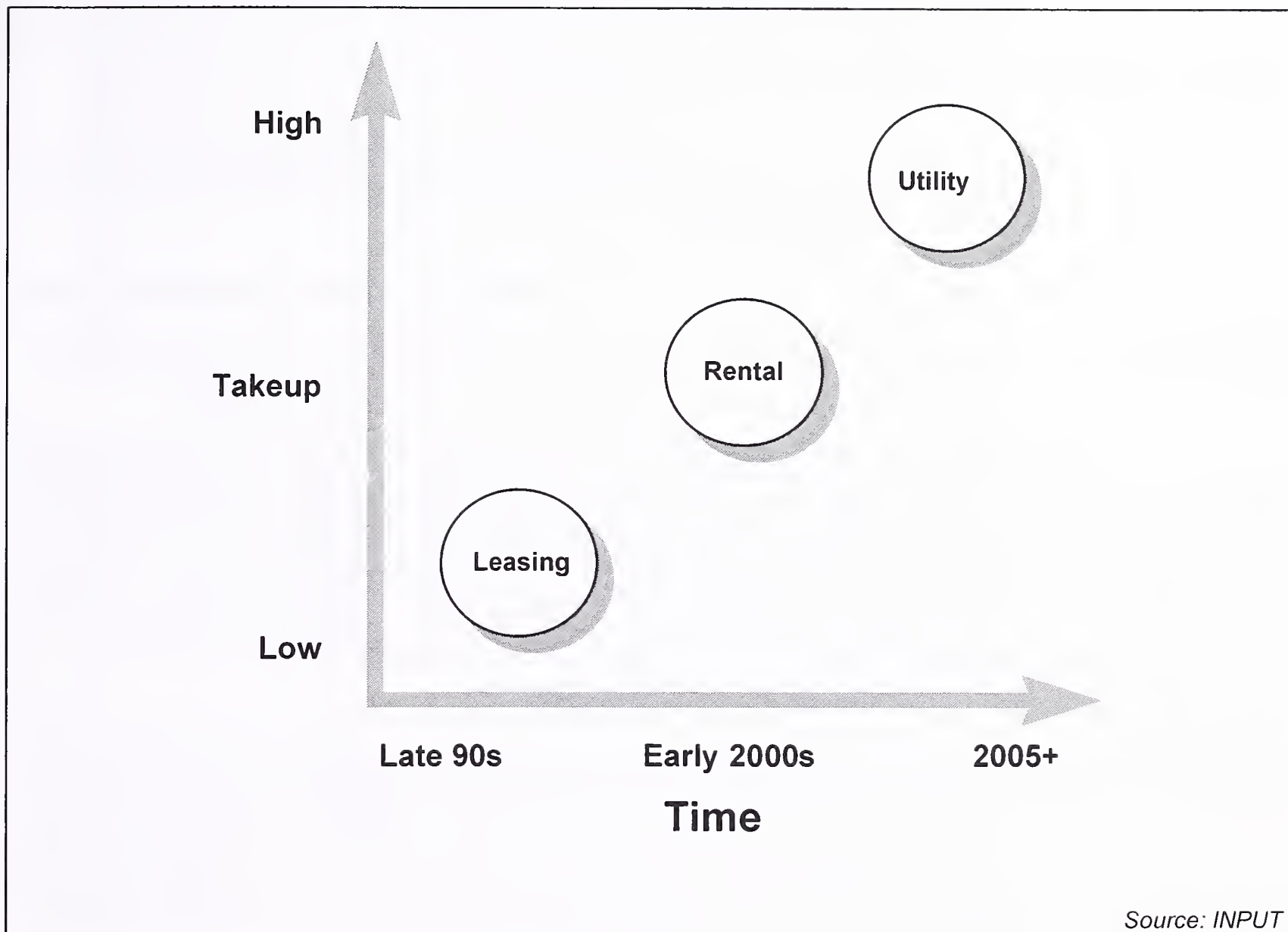
Evolution of IT Payment Methods

Exhibit II-6 shows how IT payment methods will evolve from leasing to paying on a usage basis between now and the early years of the next century. As payment methods for IT become more flexible, takeup of IT solutions will increase.

Many IT customer services vendors are enjoying success with their leasing services which are often described as IT customer finance. Increasingly, vendors are including technology exchange within their offerings. This allows customers to upgrade their IT when newer technology is necessary.

For example, IBM's SystemCare includes a technology exchange element. It allows users to trade in their equipment any time after two years of a three year lease and receive up to date technology in return for a pre-stated fee without any hidden charges. Leasing offerings such as

SystemCare give customers the ability to acquire, manage and exchange their IT assets for a fixed monthly payment. Customers do not need to run applications on out of date technology or wait until full depreciation costs are amortized before upgrading.

Other examples of services which allow customers to replace their IT with the latest technology are Wang's Technology Refresh program and Olsy's ProcureIT service.

In addition to offering customers flexibility which can lower the IT cost of ownership, leasing contracts allow customers to control support costs. The largest elements of the cost of PC ownership are the support costs associated with PC ownership. Typically, PC buying is highly decentralized. Departments tend to buy their own PCs, hence the support burden increases because often many of the PCs and associated software products within an enterprise are different. Support staff frequently do not know what kind of PC they will find when they go to fix one. Given that leasing contracts typically provide support, leasing offers to resolve the problem of uncontrollable support costs. Furthermore, leasing facilitates advance IT budget planning.

Renting IT equipment is emerging as an increasingly popular alternative to leasing. Today, PCs can be rented from a number of suppliers for as little as one week with no punitive charges for ending the contract. This frees customers from being tied to a lease and therefore offers them more flexibility. However, renting for short periods does cost proportionately more.

Some systems vendors have now embraced the concept of treating IT as a utility. For example, SNI's new Util-IT division treats IT power as a utility. Customers can pay a fixed amount per month for the use of IT resources. Util-IT's first offering is Timeless PC which offers to update customer IT environments to the latest technology as and when required. Timeless PC enables organizations to upgrade their PCs in a structured manner. It offers to reduce administration costs, provide greater flexibility to customers and most importantly to deliver guaranteed PC performance at a competitive and controllable fixed monthly cost.

Exhibit II-7 illustrates the ways in which this type of offering enables customers to reduce the IT cost of ownership.

Exhibit II-7

Ways of Enabling Cost of Ownership Reductions

- Implement standard PC configurations thus allowing customers to benefit from the economies of scale of a standardized IT environment
- Effectively future proof customers' business processes
- Enable customers to plan budgets around fixed monthly charges
- Facilitate technology change which meets customers' current business goals
- Manage customers' assets more effectively.

Source: INPUT

Paying for IT power on a usage basis will be commonplace in environments where NCs are used. Customers will pay services providers for the use of their applications. The technology required to access IT power will fall in price and may even be free in some cases. Services vendors will generate profits from the rental of applications and the provision of information. In such a scenario, it is in the interests of services vendors that the technology required to use their services is widely available. Offerings such as SNI's Timeless PC are the first step in devising a business model that will flourish when IT power truly becomes a utility.

(Blank page)



Customer Services Market Trends, U.S. 1997-2002

A

Customer Services Market 1997

The market for IT customer services in the U.S.. Grew by 2% between 1996 and 1997.

The relatively modest growth reflects two distinct components of the IT customer services market:

- The declining equipment maintenance segment which is the largest component of the IT customer services market
- The non-remedial service sectors which are growing strongly.

Exhibit III-1 shows the growth of each of the principal customer services sectors in 1996/7. The increase in total market growth reflects the fact that the maintenance sector fell by 3%, while all other services combined grew by 7%.

Exhibit III-1

U.S. Customer Services Growth by Market Segment 1996/7 (\$ Millions)

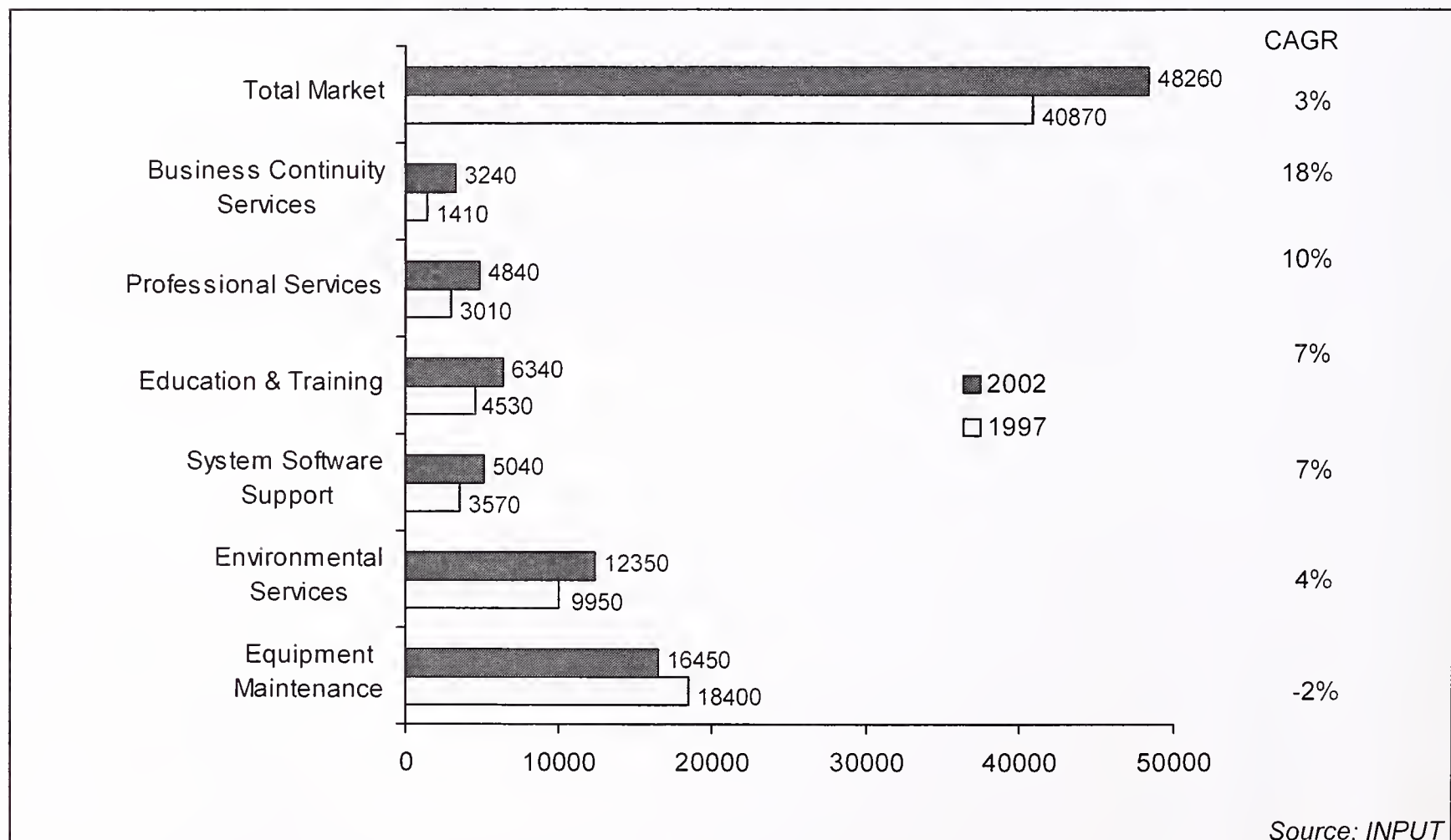
Service Sector	Market Size 1996 (\$M)	(%)	Market Size 1997 (\$M)
Equipment Maintenance	19000	-3	18400
Environmental Services	9500	5	9950
Systems Software Support	3400	5	3570
Education & Training	4200	8	4530
Business Continuity Services	1175	20	1410
Other Professional Services	2700	11	3010
Total Customer Services	39970	2	40870

Source: INPUT

B**Market Segment Trends, 1997-2002**

Exhibit III-2 shows the pattern of customer services growth in the U.S. over the next five years, broken down by market segment.

Exhibit III-2

Market Segment Growth, U.S. 1997-2002

Source: INPUT

While overall market growth is relatively modest at 3% CAGR, the underlying market sectors reveal a broad variety of growth dynamics:

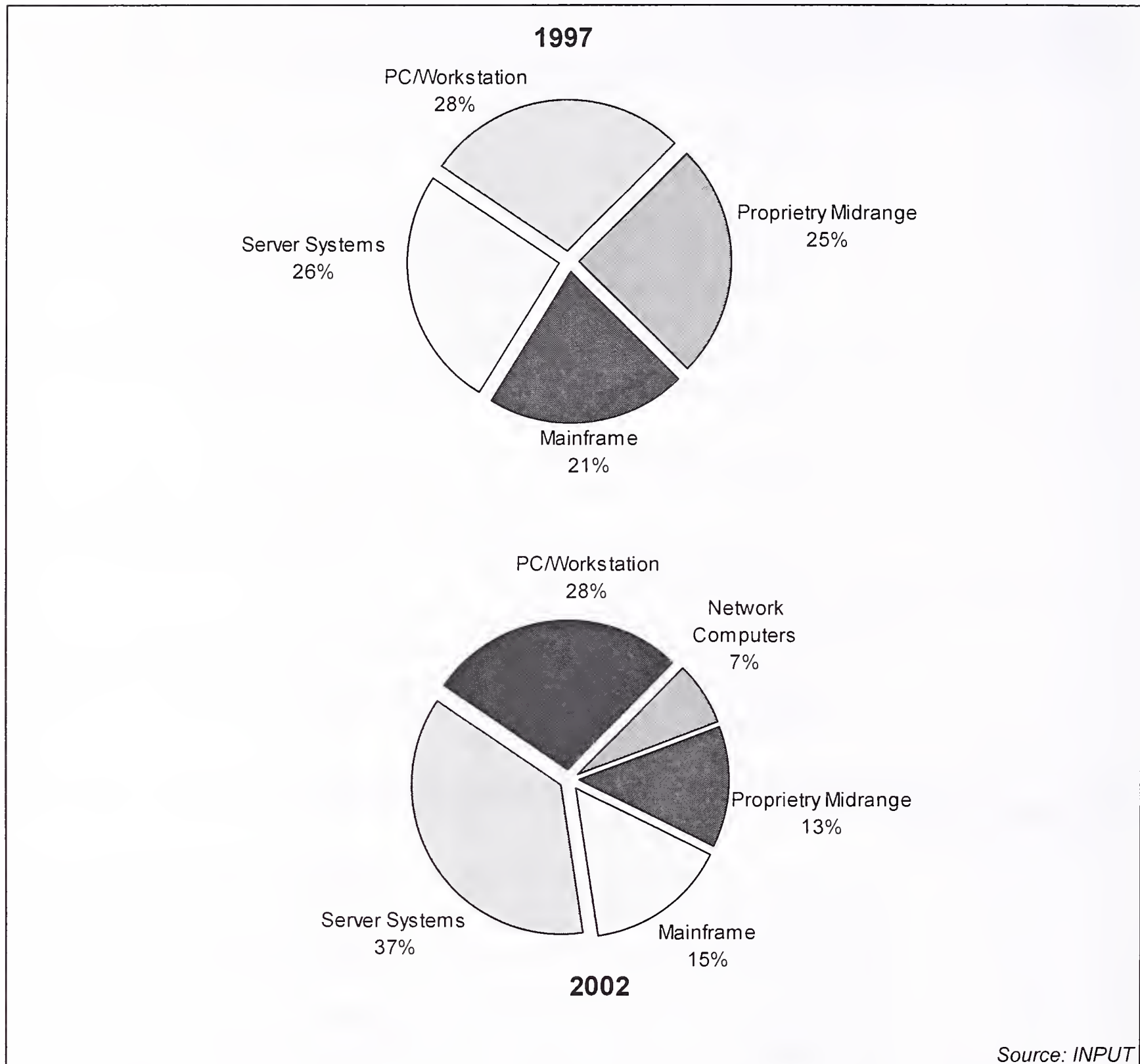
- The growth of the equipment maintenance sector is forecast to be negative at -2% CAGR. In 1997, user expenditure for equipment maintenance represents 45% of the total customer services market. This figure is forecast to fall to 35% by the year 2002
- Systems software support expenditure, which now accounts for just under 9% of the total market, will grow at 7% CAGR. By 2002, this will account for over 10% of the total market
- Environmental services expenditure, which now accounts for 24% of the total market, will grow to 26% by the year 2002
- Education and training expenditure accounts for 11% of the total market in 1997, growing to just over 13% by 2002
- Professional services account for over 7% of the total market in 1997, rising to over 10% by 2002
- Business continuity services expenditure accounts for over 3% of the total market in 1997, and is forecast to grow to just under 7% by the year 2002.

C

Platform Trends

As distributed IT environments become commonplace, IT customer services are becoming increasingly centered around open client/server platforms and less focused on proprietary platforms. INPUT forecasts a continued shift to open platforms, particularly Unix and Windows NT platforms over the next five years. There will also be a shift in emphasis from PCs toward the new network computer (NC) market. NCs will account for 5% of the IT customer services market by 2002. Exhibit III-3 splits the IT customer services market by platform in 1997 and 2002.

Exhibit III-3

Customer Services Platform Shifts, U.S. 1997-2002

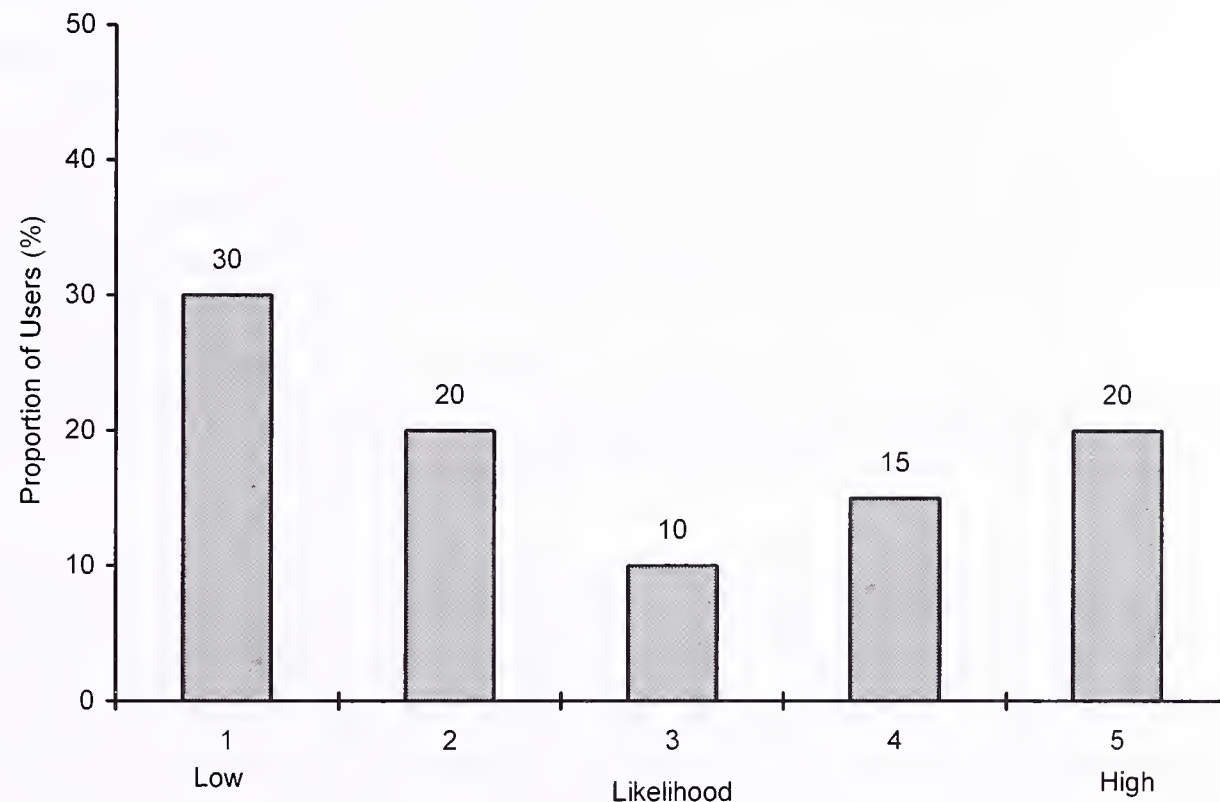
The shift towards distributed technology has driven much of the change within the IT customer services market over the past five years. In the next five years, technologies such as NCs and the Internet will have a major effect on the market. Enterprise IT environments will typically consist of a mix of mainframe, client/server and Internet technology. Vendors must therefore market support services that cater for the whole enterprise IT infrastructure.

INPUT predicts that the NC will not replace existing PCs on a large scale. Instead, they will be used as clients in many areas where PC deployment is not cost effective.

Exhibit III-4 shows that 35% of user organizations are very likely to adopt NCs by 1999.

Exhibit III-4

Likelihood of Introducing NCs by 1999



Sample: 180

Source: INPUT

Enterprises have already become wedded to the distributed computing paradigm. The ability to allow disparate parts of an organization to share information and work as a team has become vital for many organizations.

The NC will enable corporations to bring computing functionality to areas of their business that previously used very little or no IT.

Despite the lower costs associated with the on-going servicing of NCs many opportunities for support vendors will become apparent. The integration between existing systems and the support of combined infrastructures will offer the greatest opportunities.

The issue of reducing the cost of IT ownership will increasingly be tackled through the use of flexible payment methods.

The rapid changes in the IT business have increased demand for flexible methods of payment which enable customers to protect their investments. Many vendors now offer leasing contracts which allow customers to change their technology during the lease at no additional charge. Furthermore, vendors are beginning to offer even more flexible rental contracts which enable users to keep even tighter control of the cost of IT ownership. As NC and Internet technology become widespread, users will have an even greater degree of flexibility and pay for IT power on a usage basis. These new payment paradigms will further accelerate the uptake of IT solutions.

The largest elements of the cost of PC ownership are the support costs associated with PC ownership. Typically, PC buying is highly decentralized. Departments tend to buy their own PCs, hence the support burden increases because often many of the PCs and associated software products within an enterprise are different. Support staff frequently do not know what kind of PC they will find when they go to fix one. Given that leasing and rental contracts typically provide support, they offer to resolve the problem of uncontrollable support costs. Furthermore, leasing and rental facilitate advance IT budget planning.

Some systems vendors have now embraced the concept of treating IT as a utility. For example, SNI's new Util-IT division treats IT power as a utility. Customers can pay a fixed amount per month for the use of IT resources. Util-IT's first offering is Timeless PC which offers to update customer IT environments to the latest technology as and when required. Timeless PC enables organizations to upgrade their PCs in a structured manner. It offers to reduce administration costs, provide greater flexibility to customers and most importantly to deliver guaranteed PC performance at a competitive and controllable fixed monthly cost.

Paying for IT power on a usage basis will be commonplace in environments where NCs are used. Customers will pay services providers for the use of their applications. The technology required to access IT power will fall in price and may even be free in some cases. Services vendors will generate profits from the rental of applications and the provision of information. In such a scenario, it is in the interests of services vendors that the technology required to use their services is widely available. Offerings such as SNI's Timeless PC are the first step in devising a business model that will flourish when IT power truly becomes a utility.

D

Trends in Help Desk Services

One of the most significant recent developments in desktop services has been the emergence of a substantial market surrounding the IT help desk.

Organizations are realizing that the modern help desk is far more sophisticated than its predecessors. When deployed effectively, modern help desk technology not only ensures adequate support cover to end users, it also enables a variety of otherwise disconnected IT functions and processes to be brought together in a very powerful way.

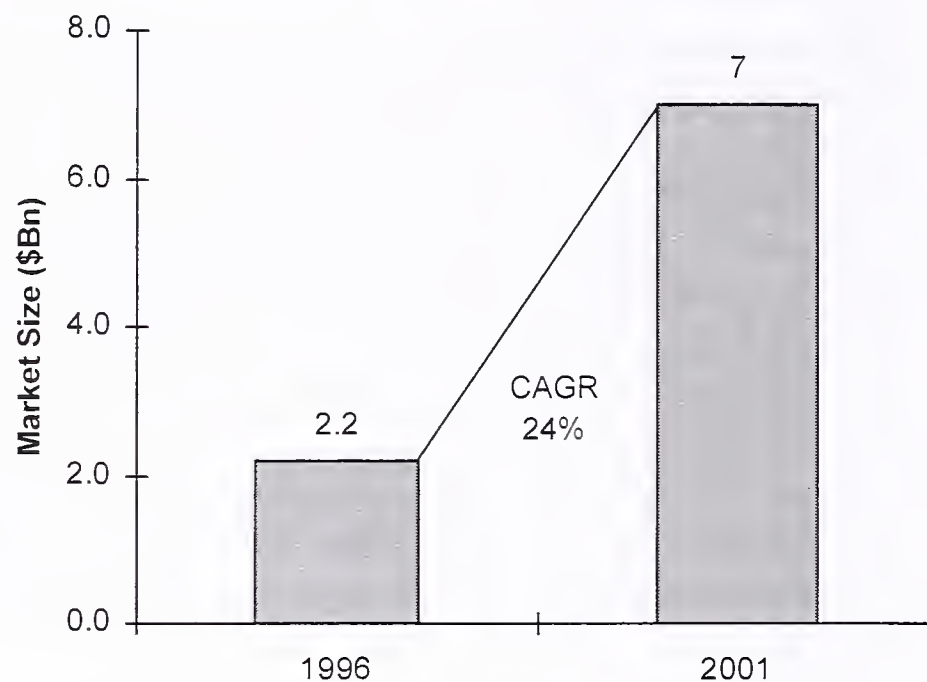
The modern help desk, supported by advanced telephony and knowledge tools can be used to integrate functions such as problem management, systems management (including network management), training and asset management.

Hence, one of the most powerful dynamics in the IT support business is the emergence of the help desk as the focal point for managing the distributed IT environment.

However, few organizations have implemented advanced help desk technology and invested in staff with MultiFinder support expertise. Many enterprises which have made the transition from datacentre to distributed IT environments find it difficult to provide adequate support to users of disparate systems, across a wide geographic area. For these two reasons largely, many enterprises seek help desk services from external vendors.

INPUT research reveals that this market will grow from \$2.2 billion in 1997 to \$7 billion by the year 2002 (see Exhibit III-5).

Exhibit III-5

Help Desk Services Market, U.S. 1997-2002

Source: INPUT

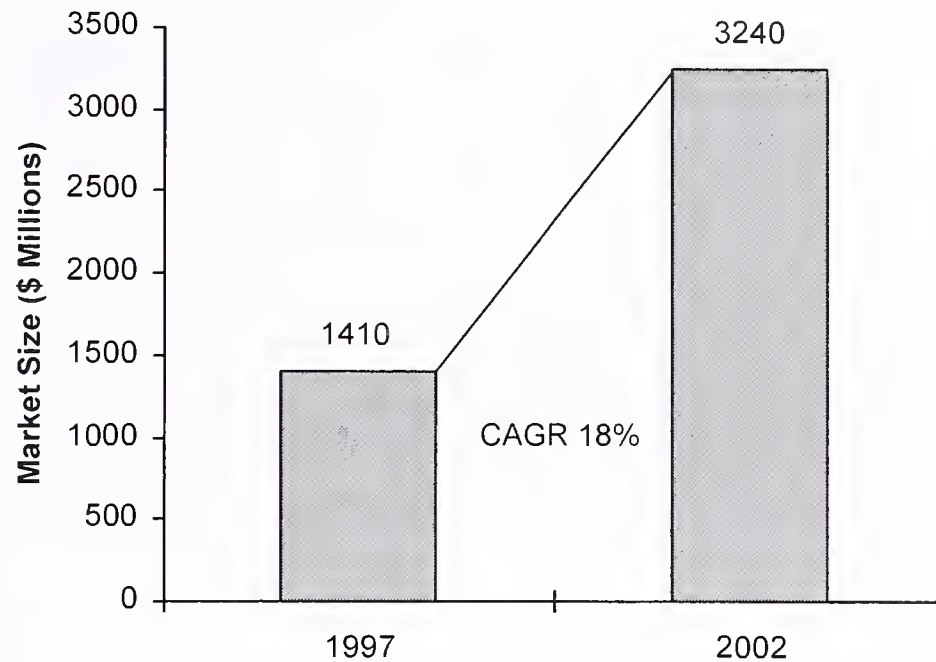
E**Business Continuity Services Market Trends**

Business continuity services is the fastest growing segment within the IT customer services market. This is largely due to the fact that an increasing proportion of mission critical activity is underpinned by distributed IT. Hence, enterprises seek guarantees that their businesses will be protected from the adverse consequences of downtime and that downtime is minimized.

INPUT research reveals that today's U.S. businesses tend not to perceive physical threats such as terrorist bombs, floods and fires as the main threats to the continuity of their business activities. Logical threats such as data security, and hardware and software failure are now perceived to be the major threats to business activities. This is not surprising given that today's distributed IT environments are increasingly vulnerable to logical threats.

The business continuity services market in terms of the amount spent by users on business continuity services contracts in 1997 is estimated to be worth approximately \$1.4 billion. However, this is expected to grow to \$3.2 billion in 2002 at 18% CAGR (see Exhibit II-6).

Exhibit III-6

U.S. Business Continuity Services Market, 1997-2002

Source: INPUT

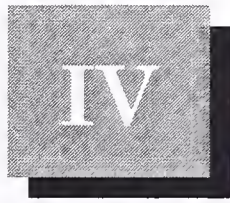
Increasingly, business continuity services vendors are augmenting traditional disaster recovery services, which were originally designed for mainframe environments, with proactive and predictive services that are invoked throughout the lifecycle of the business environment. Such services are often designed to offer guaranteed levels of availability.

Indeed, high availability services and business continuity services are converging. Users seek availability guarantees which cover interruptions to business processes that are caused by unexpected incidents. Such guarantees can only be made if services providers work closely with their customers throughout the business lifecycle. In order to guarantee high availability, business continuity services vendors must be involved in:

- Assessing the costs of interruptions to businesses and identifying levels of availability that meet business objectives
- Planning, designing and implementing enterprise environments to support availability requirements. For example, network architectures might be examined to ensure that there is adequate bandwidth for expected transaction loads. If there is not adequate bandwidth, networks will be re-structured or new ones will be installed

- Remote management which proactively and predictively minimizes downtime. A proactive service might monitor IT environments and anticipate technological problems enabling vendors to prevent problems from occurring. A predictive service might use trend analysis to understand the business demands placed on an IT environment. Vendors can then, for example, anticipate when transaction loads will be at their highest and take action to ensure that such loads do not compromise availability.

Of course business continuity vendors must also offer traditional business continuity services such as standby sites in order to minimize the adverse consequences of a disruptive incident but the above services will reduce the probability of such incidents interrupting business processes in the first place.



Market Analysis, Forecast and Competitive Analysis

This chapter contains quantitative analyses of the U.S. customer services market (for the period 1997 to 2002) and also contains estimates of the revenues of the leading customer services vendors in the U.S..

A**U.S. Market Database**

Exhibit IV-1

Customer Services Market Forecast, U.S. 1997-2002 (U.S.\$ Millions)

Market Size U.S.\$ Millions									
Service Sector	1996	96-97 (%)	1997	1998	1999	2000	2001	2002	97-2002 CAGR (%)
Equipment Maintenance	19000	-3%	18400	17850	17400	16900	16750	16450	-2
Environmental Services	9500	5%	9950	10500	11100	11600	11950	12350	4
Systems Software Support	3400	5%	3570	3820	4080	4370	4680	5040	7
Education & Training	4200	8%	4530	4810	5090	5430	5920	6340	7
Business Continuity Services	2700	11%	3010	3300	3620	4000	4390	4840	10
Other Professional Services	1175	20%	1410	1650	1980	2340	2750	3240	18
Total Customer Services	39975	2%	40870	41930	43270	44640	46440	48260	3

Source: INPUT

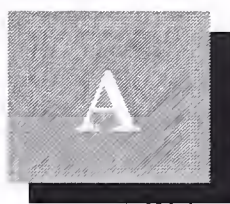
Exhibit IV-2

Customer Services Revenues, 1996 U.S. (\$ Millions)

		Equipment Maintenance	Environmental Services	System Software Support	Education & Training	Professional Services	Business Continuity Services	Total Customer Services
1	IBM	2530	570	0	310	150	100	3660
2	Digital	2250	150	325	0	380	35	3140
3	HP	720	190	385	0	0	65	1360
4	NCR	850	140	85	0	120	0	1195
5	Unisys	400	120	140	80	90	50	880
6	Decision One	350	50	60	0	40	0	500
7	Wang	250	60	65	40	80	0	495
8	Entex	330	50	35	0	70	0	485
9	GE Capital Services	290	50	40	0	80	0	460
10	Sun	320	45	90	0	0	0	455
	Top 10	8780	1445	1255	450	1080	260	13270
	Other Equipment Vendors	7860	780	1355	805	1370	430	12600
	Other IMOs	1300	250	70	40	110	20	1790
	VARs	840	75	100	75	45	0	1135
	ISVs	200	300	720	2930	85	490	4725
	Non-Industry Vendors	20	6650	0	0	10	0	6680
	TOTAL MARKET (Rounded)	19000	9500	3500	4300	2700	1200	40200

Source: INPUT

(Blank page)



The Customer Services Market Defined

A

INPUT's View of the Customer Services Market

INPUT's view of the customer services market is illustrated in schematic form in Exhibit A-1. This exhibit illustrates the overall structure of the hardware products or equipment market for systems, and the relationship between customer services and the other segments of the equipment market.

Included within INPUT's definition of customer services are six service sectors:

- Equipment maintenance
- Environmental services
- Systems software support
- Education and training
- Professional services
- Business continuity services.

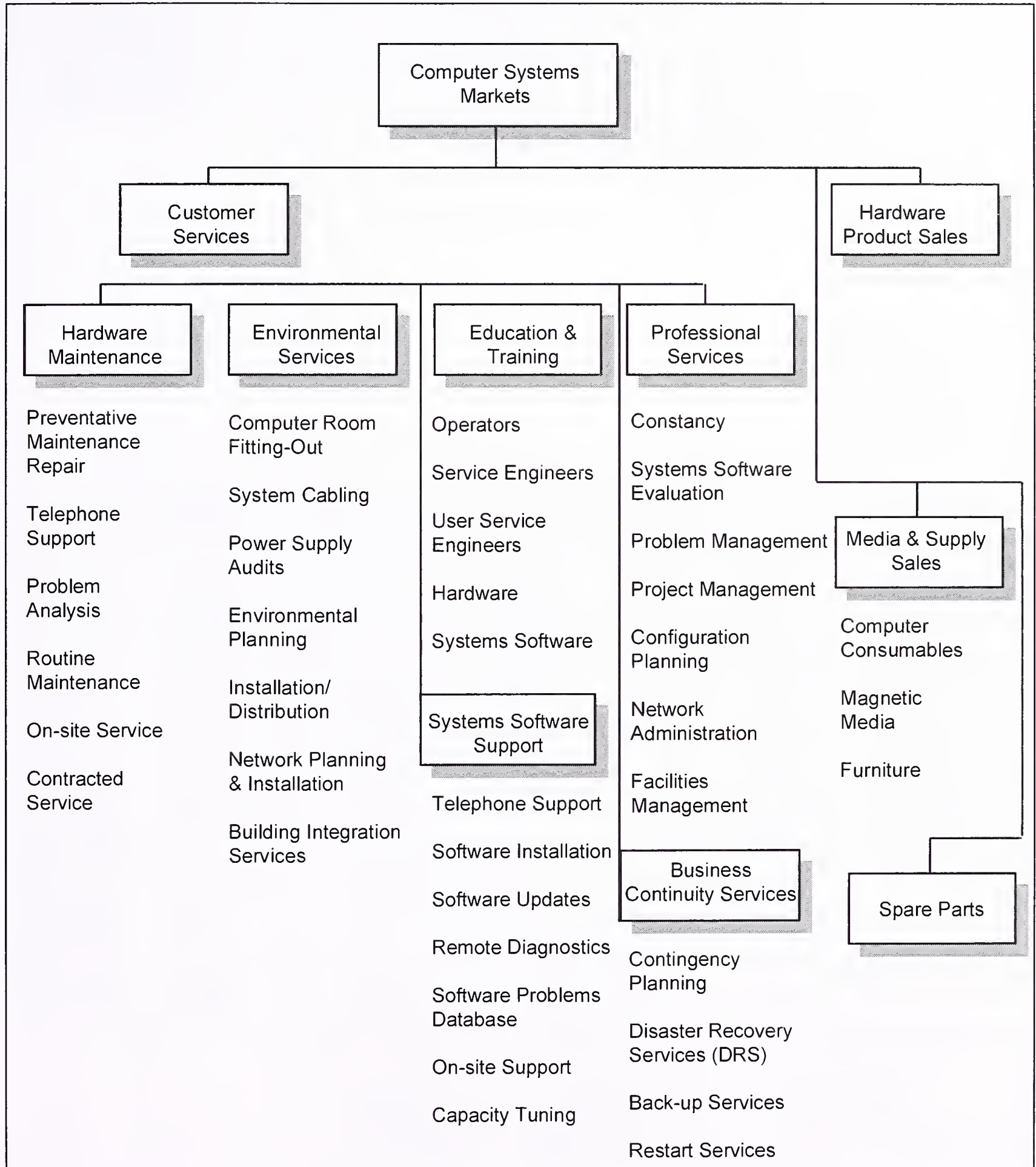
Excluded from INPUT's definition of the customer services market, as essentially product markets, are:

- Sales of spare parts
- Media and supplies sales

- Hardware product sales themselves.

Exhibit A-1 indicates the principal activities undertaken within each of the six service sectors. In each service sector, INPUT's definition of user expenditure includes only those services provided to users by an external organization on a chargeable basis. Services provided by subsidiaries or internal resources are considered unavailable for open tender. They are therefore excluded from the open market but included in the captive market potential.

Exhibit A-1

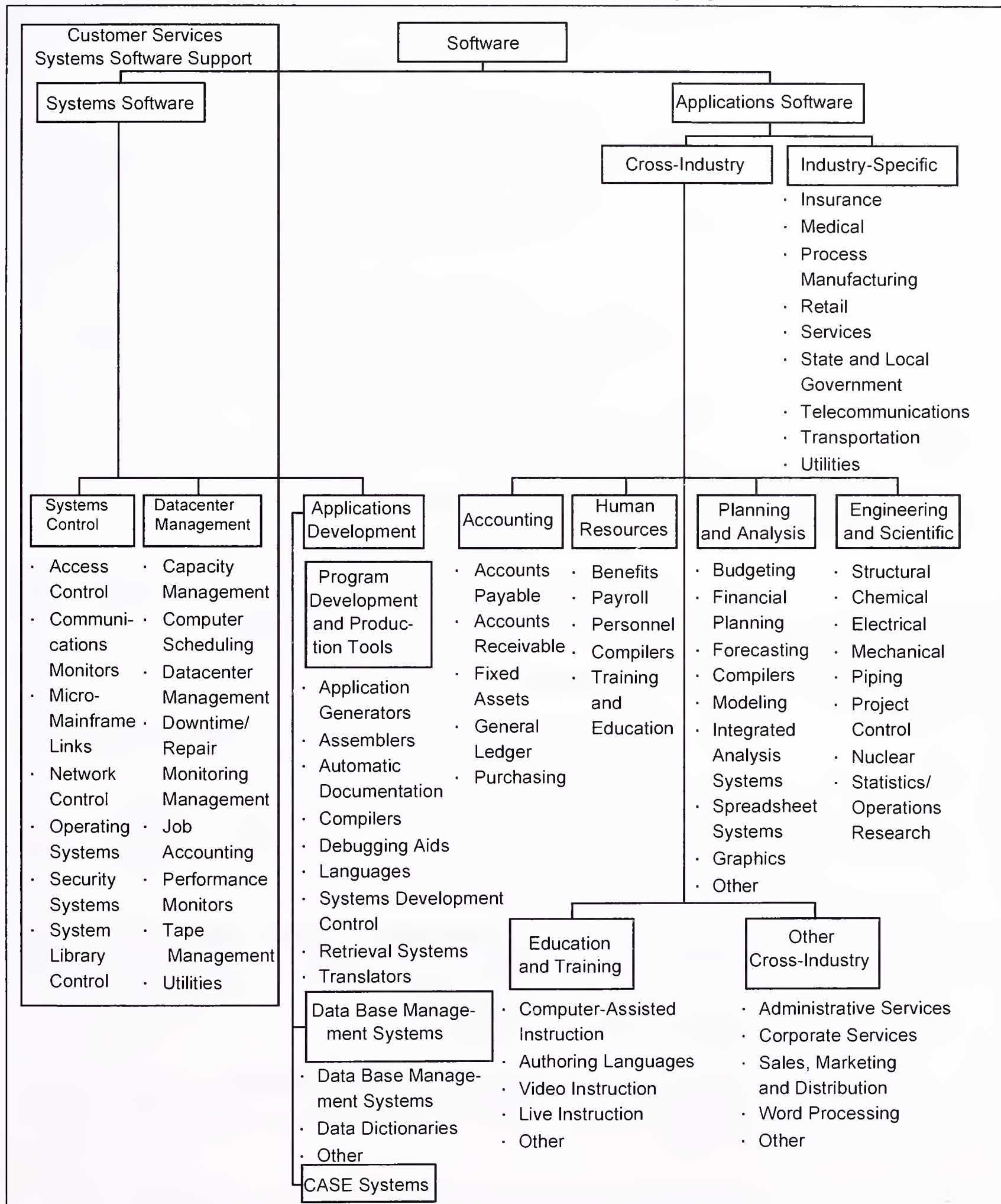
Customer Services Market Structure

Source: INPUT

Software support activities that are included in the customer services market are those activities related to the support of systems software. Exhibit A-2 illustrates INPUT's definition of the software products market. Aspects of software support included in the customer services market are restricted to those areas highlighted in the exhibit with the rectangular box. They relate to system control and data center management software products.

Exhibit A-2

Software Products Market Structure



Source: INPUT

B

Customer Services Sectors

Customer services sectors are defined by INPUT as follows:

- **Equipment maintenance:** the repair or routine preventive maintenance of computer systems hardware or hardware components. Included are associated support activities such as telephone support, problem analysis and remote diagnostics. Contracts may be for one or more years; alternating repairs may be effected on an ad hoc basis.
- **Environmental services** are defined as all planning and implementation services which affect the environments in which computer platforms are expected to run. For these purposes, environment can mean any of the following:
 - The computer room fixtures and fittings
 - Cabling between computers and other devices in a system or network
 - Physical environment, such as: electrical power, air conditioning, water cooling, smoke or fire detection equipment's
 - Network attachments
 - Buildings in which computers or network devices or terminals must reside.

Environmental services normally involve the installation, upgrade, repair or de-installation of some piece of equipment, but may be restricted to planning only.

- **Systems software service/support:** software maintenance activities that relate to systems software (not applications software). Included are associated support activities such as telephone support, problem analysis and software diagnostics.
- **Education and training:** all education and training expenditures for IT industry applications are included within the definition of customer services.
- **Professional services:** within the definition of customer services, this sector of the market refers only to those elements of professional

services that are concerned with the support of the systems platform or network and its operating environment, including areas such as:

- Consultancy
- Network Administration
- System Software Evaluation
- Problems Management
- Project Management
- Configuration or Capacity Planning.

To distinguish them from environmental services, these professional services are normally restricted to planning, design or management services, without any installation of platform or ancillary equipment. It is important to acknowledge that these services are only part of the more widely defined professional services marketplace.

- **Business continuity services** include a number of service elements related to keeping a business running in the event of a major incident which temporarily puts its IT platform or network completely out of action. They include:
 - Planning for such a contingency
 - Disaster Recovery Services
 - Back-up services for magnetic or optical media
 - Restart services, covering all activities which contribute to reinstating on a permanent basis the platform or network which as suffered the major incident.

These services can be sold together in any combination or as free-standing services.

C

Customer Services Vendors

INPUT's definitions of the three primary categories of customer services vendor are as follows:

- **Equipment vendors** are defined as companies that manufacture computer hardware/equipment and may service equipment manufactured by themselves or other equipment manufacturers
- **Independent maintenance organizations (IMOs)** are defined as companies that service computer equipment and are independent of the manufacturer or agent who sold the equipment
- **Dealers and distributors** are defined as vendors that service equipment that is sold by them, either as an agent of the equipment manufacturer or as a value-added reseller (VAR).

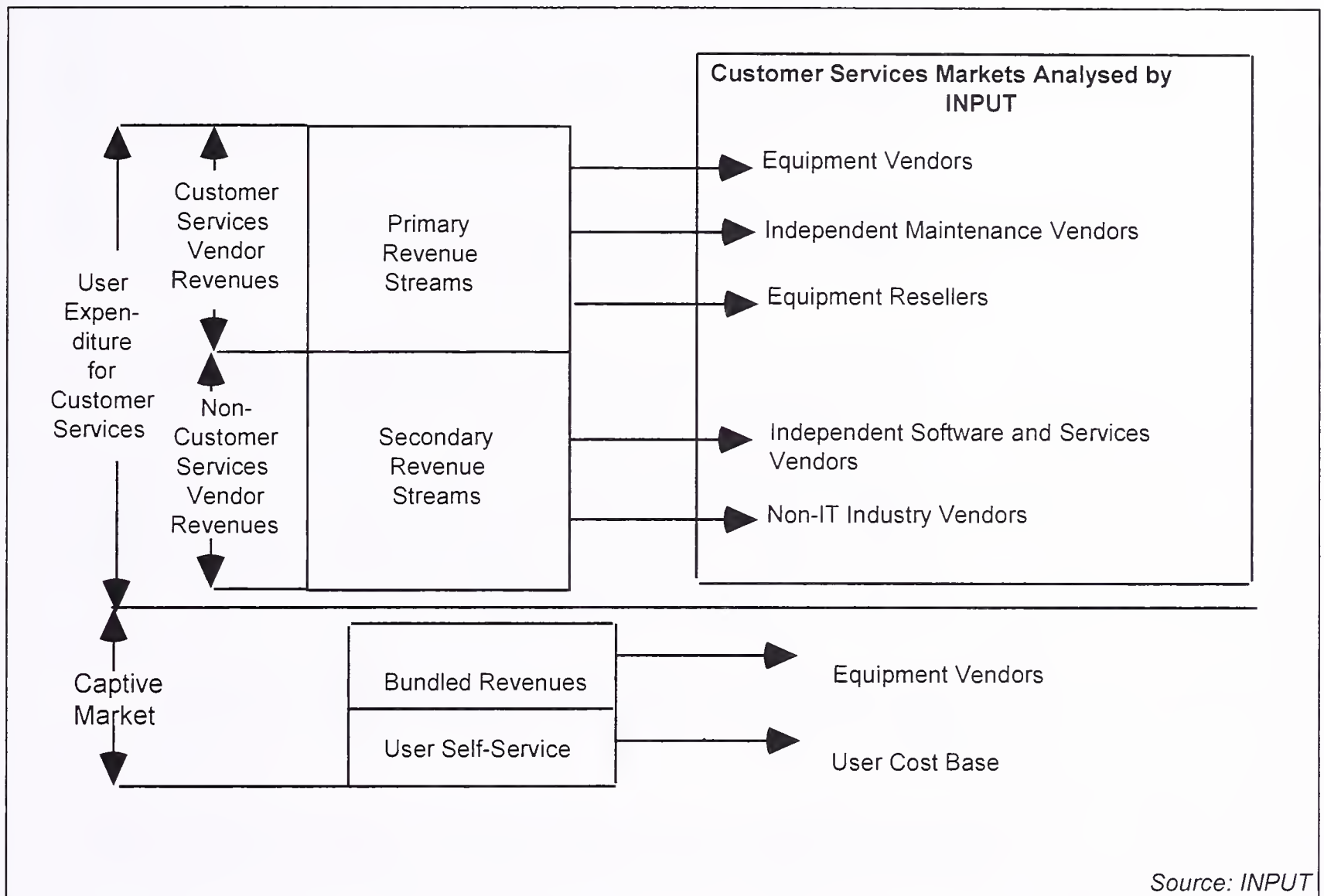
D

Customer Services Revenue Streams

Exhibit A-3 provides a diagrammatic representation of the total customer services market. This model indicates the captive and non-captive revenue components of the total customer services market and the various revenue streams that combine to form the total market.

Exhibit A-3

Customer Services Revenue Streams



User expenditure for customer services forms that portion of the market where users are provided with vendor services for which they pay separately. This portion of the market sub-divides into two components:

- **Customer services vendor revenues.** This portion of the customer services market refers to vendors for whom customer services revenues are considered to be a primary revenue stream:
 - Equipment Vendors
 - Independent Maintenance Companies
 - The Dealer/Distributor portion of the indirect equipment resellers market.
- **Non-customer services vendor revenues** refer to user expenditure, for customer services, with vendors for whom customer services

revenues are not considered to be a primary stream. This portion of the market results from the following activities:

- The system integration (SI) and turnkey systems segments of the indirect equipment resellers market. In a minority of cases, these vendors provide service and support for the system platform
- Software and services vendors whose primary source of revenue results from such items as custom software development will sometimes also provide systems support
- Non-industry vendors such as building/construction companies or specialist product and building services companies that provide environmental services. Provision of these services is a secondary aspect to the vendor's main line of business; for example, a specialist air conditioning company might service many industry sectors, with systems for a whole range of applications besides computer room air-conditioning.

The captive portion of the customer services market relates to the provision of services for which the user does not pay separately. For example:

- Systems software support charges may be bundled as part of the software license fee rather than paid for separately by the user
- Users who wholly or partly provide their own customer services from the use of in-house resources. In this case the charges for services are accrued as an in-house cost and therefore do not result in external expenditure.

(Blank page)

